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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,161	04/30/2001	Jason P. Kettinger	064731.0181	4206

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EXAMINER

LY, ANH VU H

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,161

Applicant(s)

KETTINGER, JASON P.

Examiner

Anh-Vu H Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 7-9, 15-17, 23-25, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 2-6, 10-14, 18-22, 26, 29 and 30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 7-9, 15-17, 23-25, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayweather et al (US Pub 2003/0031126 A1) in view of Onishi et al (US Patent No. 5,434,863). Hereinafter, referred to as Mayweather and Onishi.

With respect to claims 1, 9, 17, and 25, Mayweather discloses on page 3, 39th, a bandwidth reservation management that processes provisioning requests considering the impact of a protection switch. In such a case, all of the performance degradation is absorbed by the unprotected traffic class via a reduction in average, peak, and burst bandwidth allocated to unprotected traffic on remaining available spans so that there is sufficient network capacity to carry all protected traffic (a method for provisioning non-preemptible unprotected traffic in a bi-directional ring). Mayweather discloses in Figs. 3-5, the bi-directional rings comprising plurality of nodes such as nodes 0-7 (the ring comprising a plurality of nodes). Mayweather discloses in Table 3, a link status table, which is identical at every node comprising link identifiers and direction cost. The table is used for both protected traffic and unprotected traffic as previously mentioned (each node comprising a local NUT table operable to store NUT provisioning data for the node). Mayweather discloses in Fig. 8, that a link status message (a master message) is generated, sent or broadcasted to all other nodes in the ring (distributing a master message to

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each of the nodes, the master message comprising provisioning data for the ring). Herein, the routing table of each node is verified (verifying the master message at each of the nodes); an optimum route is identified; and changes made to the routing table are stored (storing in local table at each of the nodes the provisioning data in the master message when the master message is verified at each node). Mayweather discloses on page 5, 76th, the link status message can optionally be acknowledged by the other nodes (receiving an acknowledgement of the master table). Mayweather discloses in Fig. 8, that a message is broadcasted to all of the nodes but not a table of messages. Onishi discloses (col. 3, line 64 – col. 4, line 4) that the router manager distributes the routing table (master table) to all of the routing accelerators. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of broadcasting a master table such as Table 5 of Mayweather, as suggested by Onishi, to completely identify all links and its metrics.

With respect to claims 7, 15, 23, 27, Mayweather and Onishi have addressed all of the limitations recited in independent claim 1. Mayweather discloses in Fig. 8 that a notification is sent when a node senses a fault). Mayweather does not disclose sending the notification after receiving a start request. However, it is known in the art that steps of distributing a message can be implemented at different time intervals, when something occurs, when someone requests, etc... Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of sending the notification message after receiving a request in Mayweather's system, to alert a change in network status.

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With respect to claims 8, 16, 24, 28, Mayweather discloses in Figs. 3-5, two fiber bi-directional line switched rings (the ring comprising a 2 fiber bi-directional line switched ring). Mayweather does not disclose distributing master NUT table to each of the nodes through the header bytes. However, it is known in SONET networks that header bytes are used to carry network control information. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of using header bytes to carry network control information in Mayweather's system, to alert a change in network status.

Allowable Subject Matter

2. Claims 2-6, 10-14, 18-22, 26, and 29-30 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lu (US Patent No. 5,815,490) discloses SDH ring high order with management.

Kremer (US Patent No. 5,406,401) discloses apparatus and method for selective tributary switching in a bi-directional ring transmission system.

Mansingh et al (US Patent No. 6,751,660 B1) discloses network management systems that receive cross connect and/or other circuit information from network elements.

Kalman et al (US Patent No. 6,680,912 B1) discloses selecting a routing direction in a communications network using a cost metric.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H Ly whose telephone number is 703-306-5675. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl

KWANG BIN YAO
PRIMARY EXAMINER

